

TRANE		50712058	SHEET 1 OF 3
THIS DRAWING IS PROPRIETARY AND SHALL NOT BE COPIED OR USED CONVENTS DISCLOSED TO OUTSIDE PARTIES WITHOUT THE WRITTEN DRAWN BY: D.SHERRILL DATE: 09-MAY-2017		REV A	
REPLACES:	SCHEMATIC		
REVISION DATE:	RTAC AFD RETROFIT		
SIMILAR TO:	4 COMPRESSOR UNIT		
DEVICES, DESCRIPTIONS & DESIGNATIONS			

DEVICES, DESCRIPTIONS & DESIGNATIONS

LEGEND		
DEVICE DESIGNATION	LINE NUMBER	DESCRIPTION
1B1	21	PANEL VENTILATION FAN
1CB1	7	HACR CIRCUIT BREAKER, CIRCUIT 1
1CB2	13	HACR CIRCUIT BREAKER FOR AFD CIRCUIT
1F15	17	CONTROL POWER TRANSFORMER SECONDARY FUSE, 115 VOLT CIRCUIT
1F16, 1F17	15,16	CONTROL POWER TRANSFORMER SECONDARY FUSE, LOW VOLTAGE CIRCUIT
1K5	20,22,45	START CONTACTOR, COMPRESSOR 1B
1K9	24	CONDENSER FAN CONTACTOR, CIRCUIT 1
1K10	27	CONDENSER FAN CONTACTOR, CIRCUIT 1
1K11	30	CONDENSER FAN CONTACTOR, CIRCUIT 1
1K12	33	CONDENSER FAN CONTACTOR, CIRCUIT 1
1K13	33	CONDENSER FAN CONTACTOR, CIRCUIT 1
1K14	10	CONDENSER FAN CONTACTOR, CIRCUIT 1
1K20	21,22,37,43,46	RELAY, AFD CIRCUIT 1 STATUS
1K30	35,39	RELAY, HIGH PRESSURE CUTOUT CIRCUIT 1
1SW1	7	DISCONNECT SWITCH FOR CUSTOMER POWER WIRING, CIRCUIT 1
1T1	15	CONTROL POWER SUPPLY TRANSFORMER
1T8	109	POTENTIAL VOLTAGE TRANSFORMER, UNDER/OVER VOLTAGE
1T81	1	TERMINAL BLOCK FOR CUSTOMER POWER WIRING, CIRCUIT 1
1T85	VARIOUS LOCATIONS	MEMORY CONTROL WIRING TERMINAL STRIP
1U54	21	VENTILATION FAN OFF/ON TEMPERATURE CONTROL SWITCH (CONTROL PANEL 1)
1U15	21	QUAD RELAY OUTPUT, FAN CONTROL, CIRCUIT 1
1U30	45	CONTROL MODULE, UC800
1U1	12,37	AFD, CIRCUIT 1
1U19	107	STARTER MODULE, COMPRESSOR 1B
2CB1	67	HACR CIRCUIT BREAKER FOR AFD CIRCUIT 2
2CB2	74	HACR CIRCUIT BREAKER FOR AFD CIRCUIT 2
2F15	78	CONTROL POWER TRANSFORMER SECONDARY FUSE, 115 VOLT CIRCUIT
2F16	76	CONTROL POWER TRANSFORMER SECONDARY FUSE, LOW VOLTAGE CIRCUIT
2F17	7	CONTROL POWER TRANSFORMER SECONDARY FUSE, LOW VOLTAGE CIRCUIT
2K5	80,82,103	START CONTACTOR, COMPRESSOR 2B
2K9	83	CONDENSER FAN CONTACTOR, CIRCUIT 2
2K10	86	CONDENSER FAN CONTACTOR, CIRCUIT 2
2K11	89	CONDENSER FAN CONTACTOR, CIRCUIT 2
2K12	92	CONDENSER FAN CONTACTOR, CIRCUIT 2
2K13	93	CONDENSER FAN CONTACTOR, CIRCUIT 2
2K20	81,82,95,102,106	RELAY, AFD CIRCUIT 2 STATUS
2K30	96,99	RELAY, HIGH PRESSURE CUTOUT CIRCUIT 2
2SW1	67	DISCONNECT SWITCH FOR CUSTOMER POWER WIRING, CIRCUIT 2
2T1	75	CONTROL POWER SUPPLY TRANSFORMER
2T61	80	TERMINAL BLOCK FOR CUSTOMER POWER WIRING, CIRCUIT 2
2T85	VARIOUS LOCATIONS	MEMORY CONTROL WIRING TERMINAL STRIP
2T54	80	VENTILATION FAN OFF/ON TEMPERATURE CONTROL SWITCH (CONTROL PANEL 2)
2U1	73,99	AFD, CIRCUIT 2
2U15	82	QUAD RELAY OUTPUT, FAN CONTROL, CIRCUIT 2
3B20	47	MOTOR, FAN, AFD ENCLOSURE CIRCUIT 1
3B1	14	MOTOR, COMPRESSOR 1A, CIRCUIT 1
3HR1	21	COMPRESSOR 1A HEATER CIRCUIT 1
3HR2	22	OIL SEPARATOR HEATER CIRCUIT 1
3L7	43	OIL LINE VALVE, COMPRESSOR 1A
3L8	45	OIL LINE VALVE, COMPRESSOR 1B
4PS1	34	HIGH PRESSURE CUTOUT SWITCH, COMPRESSOR 1A
4L2	2	LOW PRESSURE CUTOUT
3TS1	47	VENTILATION TEMPERATURE SWITCH, AFD ENCLOSURE CIRCUIT 1
4B20	105	MOTOR, FAN, AFD ENCLOSURE CIRCUIT 2
4B1	76	MOTOR, COMPRESSOR 2A, CIRCUIT 2
4HR1	81	COMPRESSOR 2A HEATER CIRCUIT 2
4HR2	82	OIL SEPARATOR HEATER CIRCUIT 2
4L7	102	OIL LINE VALVE, COMPRESSOR 2A
4L8	104	OIL LINE VALVE, COMPRESSOR 2B
4PS1	96	HIGH PRESSURE CUTOUT SWITCH, COMPRESSOR 2A
4L1	75	CHRS, AFD CIRCUIT 2
4TS1	105	VENTILATION TEMPERATURE SWITCH, AFD ENCLOSURE CIRCUIT 2
BRT4	117	COMPRESSOR DISCHARGE TEMPERATURE SENSOR, COMPRESSOR 1A
BRT5	120	COMPRESSOR DISCHARGE TEMPERATURE SENSOR, COMPRESSOR 2A

GENERAL & FLAG NOTES

- 1 WIRING FOR 46DV UNIT SHOWN. SEE INSET "A" FOR CONTROL POWER TRANSFORMER WIRING FOR OTHER VOLTAGES.
- 2 FOR LOW AND WIDE AMBIENT OPTION, 1K9 IS NOT PRESENT. SEE INSET "C"
- 3 WIRING FOR 46DV UNIT SHOWN. SEE INSET "D" FOR CONTROL POWER TRANSFORMER WIRING FOR OTHER VOLTAGES.
- 4 FOR LOW AND WIDE AMBIENT OPTION, 2K9 IS NOT PRESENT. SEE INSET "F"
- 5 CONTROLS & ASSOCIATED WIRING ARE USED ONLY WHEN THE CONTROL PANEL VENTILATION FAN IS PROVIDED.
- 6 FOR LOW & WIDE AMBIENT OPTION HEATERS & THERMOSTAT REQUIRED.
- 7 REFER TO EXISTING UNIT SCHEMATICS FOR SPECIFIC CONNECTION DETAIL.
- 8 OIL SOLENOIDS MAY NOT BE INSTALLED ON SOME UNITS, REFER TO EXISTING UNIT CONFIGURATION.
- 9 UNDER/OVER VOLTAGE DETECTION MUST BE MOVED FROM STARTER MODULE 1U14 TO STARTER MODULE 1U19, COMPRESSOR 1B.
- 10 DISCHARGE TEMPERATURE SENSORS MUST BE INSTALLED ON COMPRESSORS WITH AFD DRIVE, 1A AND 2A.
- 11 COMPONENTS SPECIFIC TO AFD RETROFIT KIT.

NOTES:
COMPONENTS (LLIDS) ARE NOT NECESSARILY WIRED ON THE IPC BUS IN THE ORDER SHOWN.

WARNING	AVERTISSEMENT	ADVERTENCIA
HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS AND FOLLOW LOCK OUT AND TAG PROCEDURES BEFORE SERVICING. INSURE THAT ALL MOTOR CAPACITORS HAVE DISCHARGED STORED VOLTAGE. UNITS WITH VARIABLE SPEED DRIVE, REFER TO DRIVE INSTRUCTIONS FOR CAPACITOR DISCHARGE. FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.	TENSION DANGEREUSE! COUPER TOUTES LES TENSIONS ET OUVIR LES SECTIONNEURS À DISTANCE, PUIS SUIVRE LES PROCÉDURES DE VERROUILLAGE ET DES ÉTIQUETTES AVANT TOUTE INTERVENTION. VÉRIFIER QUE TOUS LES CAPACITÉS DES MOTEURS SONT DÉCHARGÉS. DANS LE CAS D'UNITÉS COMPORANT DES ENTRAINEMENTS À VITESSE VARIABLE, SE REPORTER AUX INSTRUCTIONS DE L'ENTRAÎNEMENT POUR DÉCHARGER LES CAPACITÉS.	¡VOLTAJE PELIGROSO! DESCONECTE TODA LA ENERGÍA ELÉCTRICA, INCLUIDO LAS DESCONEXIONES REMOTAS Y SIGA LOS PROCEDIMIENTOS DE CIERRE Y ETIQUETADO ANTES DE PROCEDER AL SERVICIO. ASEGURÉSE DE QUE TODOS LOS CAPACITORES DEL MOTOR HAYAN DESCARGADO EL VOLTAJE ALMACENADO. PARA LAS UNIDADES CON EJE DE DIRECCIÓN DE VELOCIDAD VARIABLE, CONSULTE LAS INSTRUCCIONES PARA LA DESCARGA DEL CAPACITORES.

CAUTION	PRECAUCIÓN	ATTENTION
USE COPPER CONDUCTORS ONLY! UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.	N'UTILISER QUE DES CONDUCTEURS EN CUIVRE! LES BORNES DE L'UNITÉ NE SONT PAS CONÇUES POUR RECEVOIR D'AUTRES TYPES DE CONDUCTEURS. L'UTILISATION DE TOUT AUTRE CONDUCTEUR PEUT ENDOMMAGER L'ÉQUIPEMENT.	¡UTILICE ÚNICAMENTE CONDUCTORES DE COBRE! LAS TERMINALES DE LA UNIDAD NO ESTAN DISEÑADAS PARA ACEPTAR OTROS TIPOS DE CONDUCTORES. SI NO LO HACE, PUEDE OCASIONAR DAÑO AL EQUIPO.



